1. Solve the linear equation below. Then, choose the interval that contains the solution.

$$\frac{4x+9}{3} - \frac{7x-6}{5} = \frac{-6x-6}{7}$$

   A. $x \in [-6.7, -5.3]$

   B. $x \in [-28.2, -25.3]$

   C. $x \in [-3.2, -0.8]$

   D. $x \in [-5.2, -2.7]$

   E. There are no real solutions.

2. Solve the equation below. Then, choose the interval that contains the solution.

$$-12(-19x - 11) = -18(-2x - 5)$$

   A. $x \in [-1.21, -0.9]$

   B. $x \in [-0.86, -0.65]$

   C. $x \in [0.48, 2.61]$

   D. $x \in [-0.31, 0.24]$

   E. There are no real solutions.

3. First, find the equation of the line containing the two points below. Then, write the equation in the form $y = mx+b$ and choose the intervals that contain m and b.

$$(7, -4) \text{ and } (-11, -10)$$

   A. $m \in [-0.02, 1.47]$ $b \in [4.33, 9.33]$

   B. $m \in [-0.02, 1.47]$ $b \in [-9.33, -2.33]$

   C. $m \in [-0.79, 0.15]$ $b \in [-17.67, -12.67]$

   D. $m \in [-0.02, 1.47]$ $b \in [-2, 3]$

   E. $m \in [-0.02, 1.47]$ $b \in [-13, -9]$

4. Write the equation of the line in the graph below in Standard Form $Ax + By = C$. Then, choose the intervals that contain $A, B,$ and C.
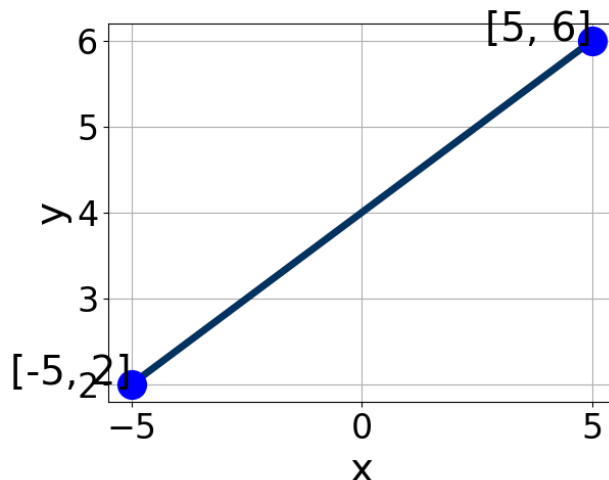
A. $A \in [-0.54, 0.83], \quad B \in [0.4, 1.3],$ and $C \in [1, 5]$

B. $A \in [1.84, 2.92], \quad B \in [1.7, 6.9],$ and $C \in [16, 28]$

C. $A \in [1.84, 2.92], \quad B \in [-5.6, -4.3],$ and $C \in [-20, -14]$

D. $A \in [-0.54, 0.83], \quad B \in [-4.4, -0.7],$ and $C \in [-8, -2]$

E. $A \in [-2.65, -1.44], \quad B \in [1.7, 6.9],$ and $C \in [16, 28]$

5. Find the equation of the line described below. Write the linear equation in the form $y = mx + b$ and choose the intervals that contain m and b.

Perpendicular to $7x + 9y = 9$ and passing through the point $(-7, -3)$.

A. $m \in [1.23, 2.14]$ $b \in [5.2, 7.1]$

B. $m \in [1.23, 2.14]$ $b \in [3.3, 4.4]$

C. $m \in [1.23, 2.14]$ $b \in [-6.7, -2.7]$

D. $m \in [-1.31, -0.88]$ $b \in [-15, -11.4]$

E. $m \in [0.52, 0.95]$ $b \in [5.2, 7.1]$

6. Solve the equation below. Then, choose the interval that contains the solution.

$$-13(-16x - 3) = -2(-6x - 19)$$

A. $x \in [-0.01, 0.04]$

B. $x \in [-0.41, -0.38]$

C. $x \in [-0.35, -0.34]$

D. $x \in [0.39, 0.42]$

E. There are no real solutions.

7. Find the equation of the line described below. Write the linear equation in the form $y = mx + b$ and choose the intervals that contain m and b.

Parallel to $9x + 7y = 13$ and passing through the point $(-6, -6)$.

A. $m \in [-1.36, -0.79]$ $b \in [7.71, 16.71]$

B. $m \in [-1.36, -0.79]$ $b \in [-14.71, -10.71]$

C. $m \in [-0.92, 0.06]$ $b \in [-14.71, -10.71]$

D. $m \in [1.21, 1.32]$ $b \in [1.71, 6.71]$

E. $m \in [-1.36, -0.79]$ $b \in [-3, 1]$

8. Write the equation of the line in the graph below in Standard Form $Ax + By = C$. Then, choose the intervals that contain $A, B,$ and C.
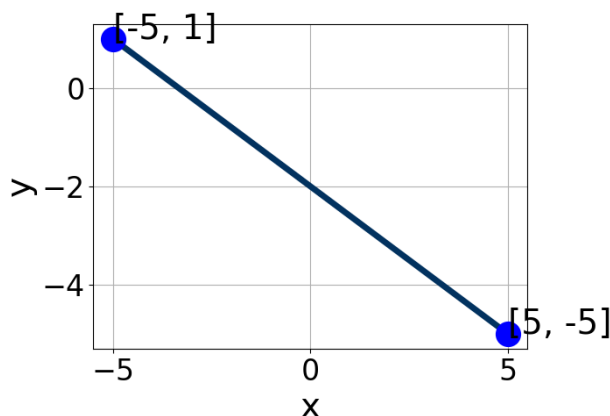
A. $A \in [-2.4, 2.6]$, $B \in [-0.4, 1.8]$, and $C \in [-2, 0]$

B. $A \in [1, 6]$, $B \in [2.9, 5.2]$, and $C \in [-15, -7]$

C. $A \in [-8, -2]$, $B \in [-5.8, -4.3]$, and $C \in [10, 12]$

D. $A \in [-2.4, 2.6]$, $B \in [-4, -0.7]$, and $C \in [2, 3]$

E. $A \in [1, 6]$, $B \in [-5.8, -4.3]$, and $C \in [10, 12]$

9. Solve the linear equation below. Then, choose the interval that contains the solution.

$$\frac{-4x - 7}{8} - \frac{4x + 4}{3} = \frac{-4x + 9}{4}$$

A. $x \in [-25.1, -22.8]$

B. $x \in [-3.9, -1.2]$

C. $x \in [-1.5, 0.2]$

D. $x \in [-6.2, -4.7]$

E. There are no real solutions.

10. First, find the equation of the line containing the two points below. Then, write the equation in the form $y = mx + b$ and choose the intervals that contain m and b.

$$(8, -5) \text{ and } (-7, -6)$$

A. $m \in [0.05, 0.24]$ $b \in [-5.7, -3.4]$

B. $m \in [0.05, 0.24]$ $b \in [-0.7, 2.9]$

C. $m \in [-0.22, 0.02]$ $b \in [-7.4, -6.1]$

D. $m \in [0.05, 0.24]$ $b \in [3.5, 7.5]$

E. $m \in [0.05, 0.24]$ $b \in [-14.3, -12.7]$

11. Solve the linear equation below. Then, choose the interval that contains the solution.
$$\frac{3x-7}{3} - \frac{-3x+5}{8} = \frac{4x+9}{5}$$

A. $x \in [3.1, 8.1]$

B. $x \in [35.52, 40.52]$

C. $x \in [1.38, 3.38]$

D. $x \in [7.28, 10.28]$

E. There are no real solutions.

---

12. Solve the equation below. Then, choose the interval that contains the solution.
$$-6(18x - 19) = -17(15x - 4)$$

A. $x \in [0.61, 2.22]$

B. $x \in [-0.62, 0.21]$

C. $x \in [-0.07, 0.74]$

D. $x \in [-1.89, -1.23]$

E. There are no real solutions.

---

13. First, find the equation of the line containing the two points below. Then, write the equation in the form $y = mx+b$ and choose the intervals that contain m and b.
$$(9, -4) \text{ and } (5, 9)$$

A. $m \in [-1.75, 6.25]$ $b \in [-11.25, -5.25]$

B. $m \in [-4.25, -2.25]$ $b \in [-18, -8]$

C. $m \in [-4.25, -2.25]$ $b \in [-1, 8]$

D. $m \in [-4.25, -2.25]$ $b \in [-33.25, -24.25]$

E. $m \in [-4.25, -2.25]$ $b \in [24.25, 31.25]$

14. Write the equation of the line in the graph below in Standard Form $Ax + By = C$. Then, choose the intervals that contain $A, B,$ and C.
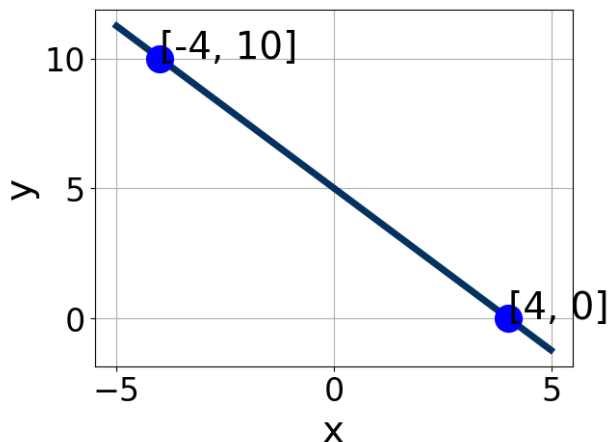
  A. $A \in [4.7, 7.3]$, $B \in [2.94, 4.93]$, and $C \in [18, 26]$

  B. $A \in [-0.2, 2.9]$, $B \in [0.43, 1.51]$, and $C \in [-1, 6]$

  C. $A \in [-0.2, 2.9]$, $B \in [-2.57, 0.34]$, and $C \in [-9, -2]$

  D. $A \in [-8.8, -4.1]$, $B \in [-4.81, -3.18]$, and $C \in [-20, -17]$

  E. $A \in [4.7, 7.3]$, $B \in [-4.81, -3.18]$, and $C \in [-20, -17]$

15. Find the equation of the line described below. Write the linear equation in the form $y = mx + b$ and choose the intervals that contain m and b.

Perpendicular to $6x + 7y = 8$ and passing through the point $(6, 8)$.

  A. $m \in [0.24, 0.9]$ $b \in [0.27, 1.74]$

  B. $m \in [-1.49, -0.49]$ $b \in [14.55, 16.43]$

  C. $m \in [1.03, 1.47]$ $b \in [0.27, 1.74]$

  D. $m \in [1.03, 1.47]$ $b \in [-1.21, -0.14]$

  E. $m \in [1.03, 1.47]$ $b \in [1.71, 2.97]$

16. Solve the equation below. Then, choose the interval that contains the solution.

$$-19(7x - 12) = -2(11x - 5)$$

A. $x \in [-2.29, -2.1]$

B. $x \in [2.13, 2.41]$

C. $x \in [1.91, 2.08]$

D. $x \in [1.43, 1.61]$

E. There are no real solutions.

---

17. Find the equation of the line described below. Write the linear equation in the form $y = mx + b$ and choose the intervals that contain m and b.

Perpendicular to $8x - 7y = 10$ and passing through the point $(2, -2)$.

A. $m \in [-1, -0.2]$ $b \in [-4.1, -3.8]$

B. $m \in [0.4, 1]$ $b \in [-3.88, -3.55]$

C. $m \in [-1, -0.2]$ $b \in [-0.03, 0.46]$

D. $m \in [-1, -0.2]$ $b \in [-0.3, 0.01]$

E. $m \in [-2.3, -1]$ $b \in [-0.3, 0.01]$

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18. Write the equation of the line in the graph below in Standard Form $Ax + By = C$. Then, choose the intervals that contain $A, B,$ and C.
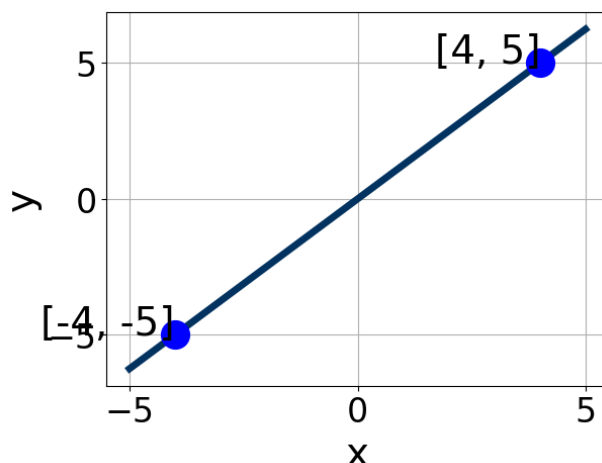
A. $A \in [4, 7.2]$, $B \in [-4.7, -3.4]$, and $C \in [-1, 7]$

B. $A \in [-5.9, -3.7]$, $B \in [3.6, 6.8]$, and $C \in [-1, 7]$

C. $A \in [-2.1, 2.8]$, $B \in [-1.7, -0.2]$, and $C \in [-1, 7]$

D. $A \in [4, 7.2]$, $B \in [3.6, 6.8]$, and $C \in [-1, 7]$

E. $A \in [-2.1, 2.8]$, $B \in [-0.3, 2.7]$, and $C \in [-1, 7]$

---

19. Solve the linear equation below. Then, choose the interval that contains the solution.
$$\frac{-7x - 6}{3} - \frac{-9x - 4}{4} = \frac{-7x + 8}{5}$$

A. $x \in [3.1, 5.8]$

B. $x \in [1.6, 2.2]$

C. $x \in [-0.1, 0.3]$

D. $x \in [6.9, 8]$

E. There are no real solutions.

---

20. First, find the equation of the line containing the two points below. Then, write the equation in the form $y = mx + b$ and choose the intervals that contain m and b.

$$(8, -11) \text{ and } (6, 9)$$

A. $m \in [-14, -1]$ $b \in [2, 8]$

B. $m \in [6, 11]$ $b \in [-52, -48]$

C. $m \in [-14, -1]$ $b \in [-21, -12]$

D. $m \in [-14, -1]$ $b \in [66, 73]$

E. $m \in [-14, -1]$ $b \in [-73, -68]$

---

21. Solve the linear equation below. Then, choose the interval that contains the solution.
$$\frac{-7x + 6}{8} - \frac{5x - 8}{2} = \frac{-5x - 4}{7}$$

A. $x \in [0.1, 1.2]$

B. $x \in [1.7, 3.1]$

C. $x \in [-2.6, -0.4]$

D. $x \in [6.2, 8]$

E. There are no real solutions.

---

22. Solve the equation below. Then, choose the interval that contains the solution.
$$-19(14x + 6) = -3(4x - 16)$$

A. $x \in [-0.77, -0.57]$

B. $x \in [-0.34, -0.25]$

C. $x \in [-0.25, -0.17]$

D. $x \in [0.18, 0.4]$

E. There are no real solutions.

---

23. First, find the equation of the line containing the two points below. Then, write the equation in the form $y = mx + b$ and choose the intervals

that contain m and b.
$$(2, 8) \text{ and } (4, -2)$$

A. $m \in [-12, -4] \ \ b \in [4, 10]$

B. $m \in [-12, -4] \ \ b \in [-6, -2]$

C. $m \in [-12, -4] \ \ b \in [-20, -14]$

D. $m \in [4, 6] \ \ b \in [-26, -20]$

E. $m \in [-12, -4] \ \ b \in [17, 19]$

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24. Write the equation of the line in the graph below in Standard Form $Ax + By = C$. Then, choose the intervals that contain $A, B,$ and C.
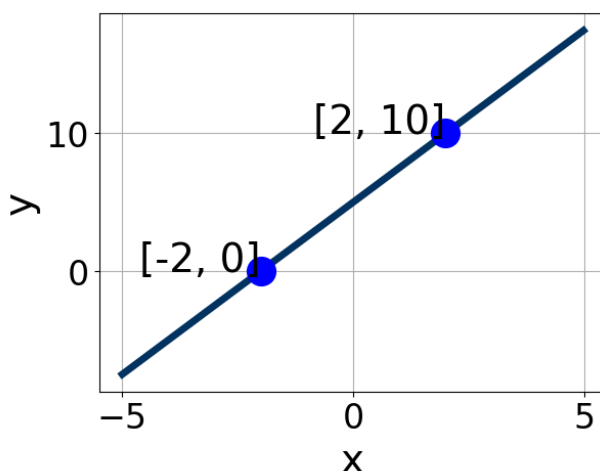
A. $A \in [-2.5, -1.5], \ \ B \in [0.1, 1.11], \text{ and } \ \ C \in [4, 7]$

B. $A \in [-6, -3], \ \ B \in [1.49, 3.66], \text{ and } \ \ C \in [9, 11]$

C. $A \in [-2.5, -1.5], \ \ B \in [-1.41, -0.53], \text{ and } \ \ C \in [-7, -4]$

D. $A \in [4, 8], \ \ B \in [1.49, 3.66], \text{ and } \ \ C \in [9, 11]$

E. $A \in [4, 8], \ \ B \in [-3.93, -1.4], \text{ and } \ \ C \in [-12, -7]$

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25. Find the equation of the line described below. Write the linear equation in the form $y = mx + b$ and choose the intervals that contain m and b.

Parallel to $7x - 8y = 9$ and passing through the point $(7, 8)$.

A. $m \in [0.77, 0.95]$ $b \in [0.05, 1.77]$

B. $m \in [0.77, 0.95]$ $b \in [-2.58, -0.48]$

C. $m \in [0.98, 1.67]$ $b \in [1.55, 2.01]$

D. $m \in [-1.19, -0.36]$ $b \in [13.58, 15.14]$

E. $m \in [0.77, 0.95]$ $b \in [1.55, 2.01]$

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26. Solve the equation below. Then, choose the interval that contains the solution.

$$-13(17x - 2) = -12(-9x - 4)$$

A. $x \in [0.65, 0.74]$

B. $x \in [-0.28, -0.21]$

C. $x \in [-0.18, 0.14]$

D. $x \in [0.03, 0.28]$

E. There are no real solutions.

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27. Find the equation of the line described below. Write the linear equation in the form $y = mx + b$ and choose the intervals that contain m and b.

Parallel to $5x - 4y = 4$ and passing through the point $(-8, 5)$.

A. $m \in [1.14, 1.98]$ $b \in [14, 18]$

B. $m \in [-2, -0.92]$ $b \in [-9, -1]$

C. $m \in [1.14, 1.98]$ $b \in [-16, -12]$

D. $m \in [0.37, 0.85]$ $b \in [14, 18]$

E. $m \in [1.14, 1.98]$ $b \in [10, 14]$

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28. Write the equation of the line in the graph below in Standard Form $Ax + By = C$. Then, choose the intervals that contain $A, B,$ and C.
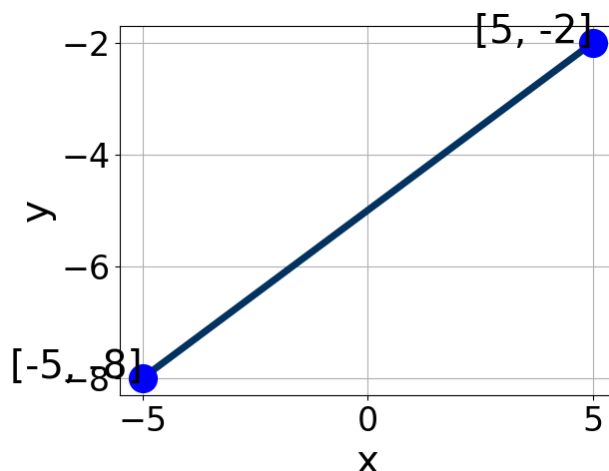
A. $A \in [-7.6, -1.2]$, $B \in [1.2, 5.1]$, and $C \in [-29, -23]$

B. $A \in [-1.1, 1.2]$, $B \in [-2, -0.4]$, and $C \in [4, 6]$

C. $A \in [2.1, 5.6]$, $B \in [-5.8, -2.8]$, and $C \in [19, 34]$

D. $A \in [2.1, 5.6]$, $B \in [1.2, 5.1]$, and $C \in [-29, -23]$

E. $A \in [-1.1, 1.2]$, $B \in [-0.7, 1.5]$, and $C \in [-10, 2]$

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29. Solve the linear equation below. Then, choose the interval that contains the solution.
$$\frac{-8x + 8}{3} - \frac{-8x - 8}{5} = \frac{-8x + 7}{4}$$

    A. $x \in [-0.6, 0.1]$

    B. $x \in [-10.2, -7.4]$

    C. $x \in [-3.2, -2.2]$

    D. $x \in [0.5, 1.1]$

    E. There are no real solutions.

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30. First, find the equation of the line containing the two points below. Then, write the equation in the form $y = mx + b$ and choose the intervals that contain m and b.

$$(-3, 10) \text{ and } (-7, -9)$$

A. $m \in [-0.25, 6.75]$　$b \in [10, 21]$

B. $m \in [-0.25, 6.75]$　$b \in [-31.25, -22.25]$

C. $m \in [-0.25, 6.75]$　$b \in [-7, 2]$

D. $m \in [-0.25, 6.75]$　$b \in [23.25, 25.25]$

E. $m \in [-4.75, 1.25]$　$b \in [-42.25, -40.25]$